



NEW MEXICO

ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

1190 Saint Francis Drive / PO Box 5469
Santa Fe, NM 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
www.env.nm.gov



Draft: January 22, 2021

GROUND WATER QUALITY BUREAU

**DISCHARGE PERMIT – RENEWAL FOR CLOSURE
EXISTING DAIRY FACILITY with a LAND APPLICATION AREA
Issued under 20.6.2 and 20.6.6 NMAC**

Facility Name: Epicenter Dairy
GWQB Discharge Permit No: DP-717
Facility Location: 250 Navajo Rd., Hagerman
Section 12, Township 14S, Range 25E

County: Chaves

Permittee Name: Abel Villalpando
Mailing Address: 288 E. Ojibwa Rd.
Dexter 88230

Permitting Action: Renewal for Closure
Source Classification: Agriculture - Dairy

Permit Issuance Date: DATE
Permit Expiration Date: DATE

NMED Permit Contact: Marc Bonem
Telephone Number/Email: 505-660-8376/marc.bonem@state.nm.us

Michelle Hunter
Chief, Ground Water Quality Bureau

TABLE OF CONTENTS

Part A	GENERAL INFORMATION	1
A100	Introduction	1
A101	Terms of Permit Issuance	1
A102	Applicable Regulations	2
A103	Additional Information Requirements	2
A104	Facility: Physical Description	3
A105	Facility: Documented Hydrogeologic Conditions	3
A106	Facility: Existing System Controls	4
A107	Facility: Discharge Permit History and Prior Authorization	4
Part B	FACILITY SPECIFIC REQUIREMENTS	5
B100	Authorization for Land Application During Closure	5
B101	Facility: Conditions for Closure	5
B102	Facility: Conditions for Post-Closure Monitoring and Maintenance	10
B103	Facility: Contingency Plan	12
Part C	GENERAL CONDITIONS	13
C100	Introduction	13
C101	Legal	14
C102	General Inspection and Entry Requirements	15
C103	General Record Keeping and Reporting Requirements	15
Part D	MISCELLANEOUS	16
D100	Supporting On-Line Documents	16
D101	Definitions	16
D102	Acronyms	20

LIST OF TABLES

Table B1	Impoundments, Ponds, or Settling Basins Closure Requirements	6
Table B2	Land Application Area Management During Closure	6
Table B3	Manure Solids and Compost Closure Requirements	7
Table B4	Monitoring Well Requirements for Closure	7
Table B5	Stormwater Management During Closure and Post-Closure	10
Table B6	Post-Closure Groundwater Monitoring Requirements	10
Table B7	Post-Closure Well Plugging and Abandonment Requirements	11
Table C1	General Discharge Permit Conditions for Dairy Facility Closure	13

PART A GENERAL INFORMATION

A100 Introduction

- A. The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal for Closure (Discharge Permit), DP-717, to Abel Villalpando (Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978, §§ 74-6-1 through 74-6-17, and the New Mexico Ground and Surface Water Protection Regulations, 20.6.2 NMAC and the Supplemental Permitting Requirements for Dairies (Dairy Rule), 20.6.6 NMAC. NMED's purpose in issuing this Discharge Permit to Epicenter Dairy (dairy facility) is to promote the protection of public health and groundwater resources (groundwater and those segments of surface water gaining from groundwater inflow, for present and potential future use as domestic and agricultural water supply and other uses) by requiring controls on the presence and distribution of water contaminants associated with former dairy facility operations and permanent closure activities and by providing oversight of post-closure monitoring.
- B. Under prior authorization of DP-717, last issued, before the effective date of the Dairy Rule, on September 12, 2005, the Permittee was authorized a maximum daily discharge volume of 48,000 gallons per day (gpd) of effluent from the Epicenter Dairy. Pursuant to site conditions, the discharge may have contained water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC.
- C. The dairy facility permanently ceased discharging on approximately March 19, 2009. Even after cessation of active discharge, the discharge or leachate retains the potential to move directly or indirectly into groundwater of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter (mg/L) or less of total dissolved solids (TDS) within the meaning of Section 20.6.2.3104 and Subsection A of 20.6.2.3101 NMAC.
- D. The Permittee is authorized to perform closure activities and post-closure monitoring pursuant to this Discharge Permit which contains requirements authorized or specified by the Dairy Rule on condition that the Permittee complies with the Dairy Rule and this Discharge Permit, which are enforceable by NMED.

A101 Terms of Permit Issuance

- A. **Permit Duration** - Pursuant to WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of a Discharge Permit is for the fixed term of **five years** from the effective date of the Discharge Permit. The obligation of the Permittee to implement facility closure and post-closure requirements survives the expiration of this Discharge Permit. If closure or post-closure activities specified herein have not been completed by the Permittee prior to the expiration of this Discharge Permit and/or the Permittee has not received from NMED a notice of Discharge Permit termination, the Permittee must request from NMED a renewal of this Discharge Permit as described in Item C below.
- B. **Permit Fees** - As a discharge permit associated with a dairy facility, the Permittee shall remit an annual permit fee payment equal to one-tenth of the applicable permit fee from table 1

of 20.6.2.3114 NMAC on the first occurrence of August 1 after the effective date of this Discharge Permit, and annually thereafter until expiration or termination of this Discharge Permit [Subsection A of 20.6.6.9 NMAC].

- C. **Permit Renewal** - To renew this Discharge Permit, the Permittee shall submit, in accordance with 20.6.6.10 NMAC, an application and any associated fees for renewal at least one year before the discharge permit expiration date, unless permanent closure and cessation of all post-closure monitoring requirements has been approved by NMED before that date.
- D. **Transfer of Ownership** - This Discharge Permit is being issued to Abel Villalpando (Permittee) as identified in **Section A100** above. In accordance with Section 20.6.6.8 NMAC, the Permittee, any listed owner(s) of record, and any [other] holder(s) of an expired discharge permit are responsible for complying with the conditions listed herein and the Dairy Rule. If during the duration of this Discharge Permit a change in the list of responsible persons is required, transfer of ownership shall be completed in accordance with Section 20.6.6.34 NMAC as described further in Item D of **Part C101** of this Discharge Permit.

A102 Applicable Regulations

- A. **Scope** - This Discharge Permit applies solely for the regulation of process wastewater or stormwater generated as a result of former dairy facility operations and closure and post-closure monitoring activities and does not include regulation of domestic wastewater at the facility [Subsection Y of 20.6.6.20 NMAC]. Domestic wastewater generated at the facility is treated or disposed of pursuant to 20.7.3 NMAC and Liquid Waste permit numbers RO020064 and RO010016.
- B. The Permittee is requesting closure of a facility that meets the definition of “dairy facility.” Sections 20.6.2.3000 through 20.6.2.3114 NMAC and Part 20.6.6 NMAC (Dairy Rule) apply to discharges specific to dairy facilities and their operations. Permanent closure of the dairy facility shall be managed in accordance with all applicable requirements of the Dairy Rule and this Discharge Permit.
- C. Groundwater quality as observed in on-site monitoring wells is subject to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC unless otherwise specified in this Discharge Permit.
- D. Complying with the applicable requirements of 20.6.2 and 20.6.6 NMAC does not relieve a dairy facility’s owner, operator or Permittee from complying with the requirements of other applicable local, state and federal regulations or laws.

A103 Additional Information Requirements

- A. **No Further Action Required.** The Permittee has satisfied the requirements of Sections 20.6.6.10 and 20.6.6.13 NMAC prior to the effective date of this Discharge Permit.

A104 Facility: Physical Description

- A. This dairy facility meets the definition of “existing facility.”
- B. This dairy facility is located at 250 Navajo Rd., approximately three and one-half miles west of Hagerman, in Section 12, Township 14S, Range 25E, Chaves County. The PIN s include 4-144-081-390-134-000000 and 4-144-081-132-405-000000 as found on the Chaves County Assessor’s office web page on June 11, 2020.
- C. On the effective date of this Discharge Permit, the dairy facility is comprised of the following wastewater system components as identified in the application and the administrative record:
1. Combination Wastewater /Stormwater impoundments:
 - a. **Lagoon** – a clay-lined retention impoundment used to store wastewater for disposal by land application. The Lagoon is located south of the corrals between Field 2 and Field 3. Constructed prior to October 1997 and had an estimated storage capacity of 24 ac.-ft.
 2. Stormwater impoundments:
 - a. **Runoff Pond** – a clay-lined impoundment used to store stormwater, located between the north corral and Field 1. Constructed approximately 1993, the Runoff Pond had an estimated capacity of 20 ac-ft.
 3. Fields within the land application area:
 - a. **Field 1** – 21.4 acres, located in the northeast corner of the facility. Field 1 received wastewater discharge between 1993 and March 2009. Wastewater was applied by flood irrigation.
 - b. **Field 2** – 33.4 acres, located to the south of the main corrals. Field 2 received wastewater discharge between 1993 and March 2009. Wastewater was applied by flood irrigation.
 - c. **Field 3** – 120 acres, located in the south of the facility. Field 3 received wastewater discharge between 2005 and March 2009. Wastewater was applied by center pivot.

These system components are identified as potential sources of groundwater contamination and will require closure as identified in this Discharge Permit. A summary of all wastewater system components authorized to release/receive discharge under prior issuances of this Discharge Permit is provided in **Section A107**.

A105 Facility: Documented Hydrogeologic Conditions

- A. Groundwater most likely to be affected at this dairy facility is at a depth of approximately 155 feet and had a pre-discharge total dissolved solids concentration of approximately 1,820 milligrams per liter.

- B. There are no perennial surface waters existing within the bounds of the facility. The closest surface water system to the facility is the Pecos River, 4.75 miles to the northeast. The Rio Felix, an ephemeral creek lies adjacent southeast of the site.

A106 Facility: Existing System Controls

- A. During operation, this dairy facility employed the following system controls pursuant to operational requirements as listed in prior issuance(s) of this Discharge Permit:

1. **Impoundments:** As listed in Item C above
2. **Flow Meters:**
 - a. **Sump Discharge Meter** - located at the milking parlor sump to measure the volume of wastewater discharged from the production area to the sump and then the lagoon.
 - b. **Lagoon Discharge Meter** - located at north side of the lagoon to measure the volume of wastewater discharged from the production area to the land application fields.
3. **Manure Solids Separator:**
 - a. **Manure Solids Separator** - Inclined screen solids separator.
4. **Monitoring Wells** - The dairy facility used the following monitoring wells to supply data representative of groundwater quality:
 - a. **MW-1A** - hydrologically downgradient of Field 1 and all contamination sources at the dairy facility and located at the north boundary of Field 1.
 - b. **MW-2** - hydrologically cross gradient/downgradient of the lagoon and located at the southeast corner of the lagoon. MW-2 was destroyed.
 - c. **MW-3A** - hydrologically upgradient of all sources on the facility and located south of Field 3. MW-3A is damaged.
 - d. **MW-4** - hydrologically upgradient of the Lagoon and located at the south edge of the Lagoon. MW-4 is dry and/or damaged.

These system controls shall require continued operation and maintenance during closure or post-closure activities and/or termination and removal as identified in this Discharge Permit.

- B. As of the effective date of this Discharge Permit, a total of 4 monitoring wells are documented at or near this dairy facility as identified in the application and/or the administrative record. All facility monitoring wells are subject either to closure or to post-closure monitoring as specified in **Section B102** and in **Table C1** of this Discharge Permit.

A107 Facility: Discharge Permit History and Prior Authorization

- A. The original Discharge Permit was issued on September 11, 1992 and subsequently renewed March 17, 2000, and renewed and modified September 12, 2005, respectively. DP-717, last

issued on September 12, 2005, authorized the Permittee to discharge water contaminants as part of facility operations subject to the following requirements:

1. Discharge up to 72,000 gpd of wastewater from the production area. Wastewater flowed to a concrete sump and was pumped through an inclined screen solids separator to a clay-lined combination wastewater and stormwater impoundment for storage. Wastewater was land applied by flood and center pivot irrigation to up to 310 acres of irrigated cropland under cultivation.
2. Utilize the following impoundments in accordance with Subsection B of 20.6.6.20 NMAC as follows:
 - a. **Lagoon** - This impoundment was permanently closed on approximately March 19, 2009 prior to the effective date of this Discharge Permit.
 - b. **Runoff Pond** - This impoundment was permanently closed on approximately March 19, 2009 prior to the effective date of this Discharge Permit.
3. Apply wastewater and stormwater to fields within the land application area in accordance with Subsections B, C and I of 20.6.6.21 NMAC. The land application area was comprised of the following fields for a total land application area of 175 acres:
 - a. **Field 1** – This field received wastewater and/or stormwater between approximately 1993 and March 19, 2009.
 - b. **Field 2** – This field received wastewater and/or stormwater between approximately 1993 and March 19, 2009.
 - c. **Field 3** – This field received wastewater and/or stormwater between approximately 2005 and March 19, 2009.

PART B FACILITY SPECIFIC REQUIREMENTS

B100 Authorization for Land Application During Closure

- A. Pursuant to Subsection A of 20.6.6.30 NMAC, the Permittee is ***not*** authorized to apply wastewater, stormwater, and manure solids and compost to fields within the land application area in accordance with Subsections B, C and I of 20.6.6.21 NMAC as follows: **Field 1, Field 2, and Field 3.**

B101 Facility: Conditions for Closure

- A. **Impoundments, Ponds, or Settling Basins** - The Permittee shall permanently close all impoundments, ponds, and/or settling basins at the dairy facility as identified in **Section A104** above in accordance with 20.6.6 NMAC and the conditions summarized in **Table B1** below.

Table B1
Impoundments, Ponds, or Settling Basins Closure Requirements

Engineering and Surveying	
a) None required.	
Operations and Maintenance	
b) Within 180 days of the effective date of this Discharge Permit (by DATE), empty and land apply all wastewater from the following impoundments, ponds, and/or settling basins in accordance with the Table B2 of this Discharge Permit: Lagoon and Runoff Pond . [Subsection A of 20.6.6.30 NMAC]	
c) Upon emptying each impoundment, pond, and/or settling basin and unless otherwise designated and approved by NMED for continued service as part of closure or post-closure maintenance (see Table C1 of this Discharge Permit), remove and properly dispose of all supporting infrastructure and any associated system controls used to supply or transfer wastewater and/or stormwater to/from the impoundment, pond, and/or settling basin.	
d) Within 180 days of the effective date of this Discharge Permit (by DATE), remove and land apply manure solids from the following facility impoundments, ponds, and/or settling basins in accordance with conditions specified in Table B2 of this Discharge Permit: Lagoon and Runoff Pond . [Subsection A of 20.6.6.30 NMAC]	
e) Using clean fill for which a borrow source is appropriated by, fill and re-grade all emptied impoundments, ponds, and/or settling basins to blend into the surrounding pre-existing surface topography within 180 days of the effective date of this Discharge Permit (by DATE), to prevent any subsequent ponding of stormwater in the area. [Subsection A of 20.6.6.30 NMAC]	
f) Send photo documentation to NMED of the properly closed Impoundments and Settling Basins within 150 days of the effective date of this Discharge Permit (by DATE).	
g) Until all wastewater has been removed from an impoundment, pond, and/or settling basin and the feature filled and re-graded to reflect surrounding topography, maintain the feature such that: <ul style="list-style-type: none"> any associated faulty pipe(s) or fixture(s) are repaired or replaced within 72 hours of discovery to mitigate or prevent an unauthorized discharge. [Subsection Q of 20.6.6.20 NMAC] 	
Recordkeeping and Reporting	
h) Report any unauthorized discharges to NMED pursuant to 20.6.2.1203 NMAC.	
i) Unless otherwise specified in this Discharge Permit, continue to submit all required monitoring information quarterly as part of the Quarterly Monitoring Report in accordance with the general reporting schedule listed in Table C1 of this Discharge Permit.	

- B. **Land Application Area Management** - The Permittee shall continue to manage all land application areas at the dairy facility in accordance with 20.6.6 NMAC and the conditions summarized in **Table B2** below.

Table B2
Land Application Area Management During Closure

Engineering and Surveying
a) None required.

Table B2
Land Application Area Management During Closure
Operations and Maintenance All Land Application Areas

b) None required.
Inspection and Monitoring All Land Application Areas
c) None required.
Recordkeeping and Reporting All Land Application Areas
d) None required.

- C. **Manure Solids and Compost** - The Permittee shall permanently remove from the surface of the dairy facility all residual manure solids and compost in accordance with 20.6.6.30 NMAC and the conditions summarized in **Table B3** below.

Table B3
Manure Solids and Compost Closure Requirements

Engineering and Surveying
a) None required.
Operations and Maintenance
b) Manure solids and compost shall be removed from surface areas at the dairy facility and applied to the designated land application area, as authorized by a discharge permit and transferred off-site for proper disposal as authorized by an approved Disposal Plan.
Inspection and Monitoring
c) None required.
Recordkeeping and Reporting
d) Provide to NMED a summary of completed closure measures according to the implementation schedule in the approved Disposal Plan and any associated monitoring and sampling data collected in the <u>Quarterly Monitoring Report</u> (see Table C1 of this Discharge Permit).

- D. **Monitoring Wells** – As part of closure, a Permittee may be required to either install one or more additional groundwater monitoring wells for post-closure monitoring (per Subsection A of 20.6.6.30) and/or plug and abandon one or more existing groundwater monitoring wells (per Subsection C of 20.6.6.30). The groundwater monitoring well system approved for closure of this dairy facility is detailed in **Table B4** below.

Table B4
Monitoring Well Requirements for Closure

Engineering and Surveying
a) To achieve compliance with the facility post-closure monitoring requirements set forth in this Discharge Permit (Section B101) and the Dairy Rule, the Permittee shall submit a monitoring well location proposal for review and approval by NMED within 60 days following the effective date of this Discharge Permit (by DATE). The proposal shall designate the locations of all post-closure monitoring wells required to be installed by this Discharge Permit as follows:
b) The well location proposal shall include, at a minimum, the following information:

Table B4
Monitoring Well Requirements for Closure

- A map showing the proposed location of the monitoring well(s) from the boundary of the source it is intended to monitor.
- A written description of the specific location proposed for the monitoring well(s) including the distance (in feet) and direction of the monitoring well(s) from the edge of the source it is intended to monitor. Examples include: 35 feet north-northwest of the northern berm of the synthetically lined impoundment; 150 degrees from north.
- A statement describing groundwater flow direction beneath the facility, and documentation and/or data supporting the determination.

All proposed monitoring well locations shall be approved by NMED prior to installation [NMSA 1978, § 74-6-5.D, Subsection B of 20.6.2.3109 NMAC] and final well location(s) shall be surveyed in accordance with Subsection B of 20.6.6.17 NMAC upon installation.

Operations and Maintenance

- c) Operate and maintain the following existing facility groundwater monitoring wells in compliance with Subsection A of 20.6.6.23 NMAC and this section of this Discharge Permit: **MW-1A, MW-3A**
- d) Within 120 days following written approval from NMED for proposed monitoring well locations, install and complete the additional groundwater monitoring wells as listed in this table [Item a)] for use in facility post-closure monitoring. [Subsection A of 20.6.6.23 NMAC]
- **MW-5**, hydrologically downgradient of the former lagoon
 - **MW-6**, hydrologically upgradient of all sources on contamination, if MW-3A cannot be repaired
 - **MW-7**, hydrologically downgradient of Field 3, Field 2 and Field 1, and east of Field 1.
- All new wells shall be constructed and completed in accordance with Subsection D of 20.6.6.23 NMAC. On installation, all new wells shall be operated and maintained in compliance with Subsection A of 20.6.6.23 NMAC and this section of this Discharge Permit.
- e) Within 180 days of the effective date of this Discharge Permit (by **DATE**), the Permittee shall properly plug and abandon the following three existing monitoring wells in accordance with Subsection C of 20.6.6.30 NMAC: **MW-2, MW-3A** (if replaced), and **MW-4**. Wells shall be plugged and abandoned pursuant to 19.27.4 NMAC and NMED's *Monitoring Well Construction and Abandonment Guidelines* and any other applicable local, state, and federal regulations. Documentation describing the plug and abandonment procedures, including photographic documentation, shall be presented in a Well Abandonment Report.
- f) Verify all facility monitoring wells are permanently identified in accordance with Subsection C of 20.6.6.23 NMAC.

Inspection and Monitoring

- g) Collect a groundwater sample from each newly installed groundwater monitoring well within 30 days of well completion. [Subsection H of 20.6.6.23 NMAC]
- h) Continue to perform quarterly routine groundwater sampling of all wells in accordance with Subsection F of 20.6.6.23 NMAC to comply with the required monitoring reporting schedule listed in **Table C1: MW-1A, MW-3A**. Monitoring of these wells shall, at a minimum, continue until all closure measures as specified in **Section B100** of this Discharge Permit have been completed and confirmation of closure completion has been received from NMED. Any post-closure monitoring requirements for the dairy facility are specified in **Section B101** of this Discharge Permit.
- i) Analyze collected groundwater sample(s) according to the methods listed in Subsection B of 20.6.6.24 and Subsection B of 20.6.2.3107 NMAC. Pursuant to Subsection B of 20.6.6.24 NMAC, sample constituents that

Table B4
Monitoring Well Requirements for Closure

require analysis and reporting to NMED include: nitrate as nitrogen, total Kjeldahl nitrogen, chloride, sulfate and total dissolved solids. [Subsection G of 20.6.6.23 NMAC]

- j) Prior to the expiration date of this Discharge Permit, NMED shall have the option to perform one downhole inspection of each monitoring well identified in this Discharge Permit. NMED shall establish the inspection date and provide at least 60 days' notice to the Permittee by certified mail. The Permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of any sediment agitated as a result of pump removal.

Should a facility not have existing dedicated pumps, but decide to install pumps in any of the monitoring wells, NMED shall be notified at least 90 days prior to pump installation so that a downhole well inspection can be scheduled prior to pump placement. [20.6.2.3107 NMAC]

Recordkeeping and Reporting

- k) Provide to NMED a **Well Abandonment Report** within 60 days of completion of well plugging activities.
- l) Provide to NMED a **Monitoring Well Survey Report** for all wells within 60 days of well completion. [Subsections I and K of 20.6.6.23 NMAC] A **Monitoring Well Survey Report** shall contain, at a minimum, the following information:
- Facility map with location and number of each well
 - Top-of-casing survey elevation data of each well
 - Depth-to-shallowest groundwater measurements
 - Direction and gradient of groundwater flow at the dairy facility
- m) A **Monitoring Well Completion Report** shall be filed with NMED for all newly installed wells within 180 days of the effective date of this Discharge Permit. [Subsection J of 20.6.6.23 NMAC] A **Monitoring Well Completion Report** shall contain, at a minimum, the following information:
- Construction and lithologic logs for the new monitoring wells including well record information specified by 19.27.4 NMAC.
 - Depth-to-most-shallow groundwater measured in each new and existing monitoring well.
 - Survey data and a survey map showing the locations of each new and existing monitoring well and a groundwater elevation contour map developed pursuant to Subsection L of 20.6.6.23 NMAC.
 - Analytical results of groundwater samples collected from the new monitoring wells, including laboratory quality assurance and quality control summary reports, and field parameter measurements.
- n) A **Quarterly Monitoring Report** shall continue to be filed with NMED in accordance with the general reporting schedule listed in **Table C1**. Each **Quarterly Monitoring Report** shall contain, at a minimum, the following information: [Subsection G of 20.6.6.23 NMAC]
- Facility map with location and number of each well in relation to the contamination source it is intended to monitor
 - Depth-to-shallowest groundwater measurements
 - Field parameter measurements and parameter stabilization log
 - Analytical results (including the laboratory quality assurance and quality control summary report)
 - Groundwater elevation contour maps utilizing elevation contours of 2 ft or less in accordance with Subsection L of 20.6.6.23 NMAC

- E. **Stormwater Management** - During implementation of both closure measures and post-closure monitoring, the Permittee shall manage stormwater at the dairy facility in accordance with 20.6.6 NMAC and the conditions summarized in **Table B5** below.

Table B5
Stormwater Management During Closure and Post-Closure

Engineering and Surveying
a) None required
Operations and Maintenance
b) Implement stormwater management by: [20.6.2.3109 NMAC]
<ul style="list-style-type: none"> • Maintain stormwater conveyance [Subsection H of 20.6.6.20 NMAC] • Divert stormwater to minimize stormwater ponding and infiltration. [Subsection H of 20.6.6.20 NMAC] • Before removal is complete, maintain diversions for facility stormwater run-on and run-off to prevent ponding within areas used for manure and compost stockpiling [Subsection S of 20.6.6.20 NMAC]
Inspection and Monitoring
c) None required
Recordkeeping and Reporting
d) None required

B102 Facility: Conditions for Post-Closure Monitoring and Maintenance

- A. Pursuant to Subsection B of 20.6.6.30, the Permittee may initiate post-closure monitoring and maintenance at a dairy facility following completion of and confirmation by NMED that the requirements of **Section B100** have been adequately met.
- B. **Groundwater Monitoring** - The Permittee is required to perform post-closure groundwater monitoring in accordance with Subsection B of 20.6.6.30 NMAC and **Table B6** below.

Table B6
Post-Closure Groundwater Monitoring Requirements

Engineering and Surveying
a) None required.
Operations and Maintenance
b) Operate and maintain all facility groundwater monitoring wells for post-closure monitoring in compliance with Subsection A of 20.6.6.23 NMAC and this section of this Discharge Permit.
Inspection and Monitoring
c) Perform quarterly routine groundwater sampling of all post-closure monitoring wells in accordance with Subsection F of 20.6.6.23 NMAC to comply with the required monitoring reporting schedule listed in Table C1 . Post-closure monitoring at a dairy facility shall continue until a minimum of eight consecutive groundwater sampling events confirm that the standards of 20.6.2.3103 NMAC are not exceeded and the total nitrogen concentration in groundwater is less than or equal to 10 mg/L. If monitoring results show

Table B6
Post-Closure Groundwater Monitoring Requirements

<p>failure of one or both of these conditions, the Permittee shall implement contingency requirements pursuant to 20.6.6.27 NMAC (Section B102).</p> <p>d) Analyze collected groundwater sample(s) according to the methods listed in Subsection B of 20.6.6.24 and Subsection B of 20.6.2.3107 NMAC. Pursuant to Subsection B of 20.6.6.24 NMAC, sample constituents that require analysis and reporting to NMED include: nitrate as nitrogen, total Kjeldahl nitrogen, chloride, sulfate and total dissolved solids. [Subsection G of 20.6.6.23 NMAC]</p> <p>e) Prior to the expiration date of this Discharge Permit, NMED shall have the option to perform one downhole inspection of each monitoring well identified in this Discharge Permit. NMED shall establish the inspection date and provide at least 60 days' notice to the Permittee by certified mail. The Permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of any sediment agitated as a result of pump removal.</p> <p>Should a facility not have existing dedicated pumps, but decide to install pumps in any of the monitoring wells, NMED shall be notified at least 90 days prior to pump installation so that a downhole well inspection can be scheduled prior to pump placement. [20.6.2.3107 NMAC]</p>
Recordkeeping and Reporting
<p>f) A Quarterly Monitoring Report shall continue to be filed with NMED in accordance with the general reporting schedule listed in Table C1. Each Quarterly Monitoring Report shall contain, at a minimum, the following information: [Subsection G of 20.6.6.23 NMAC]</p> <ul style="list-style-type: none"> • Facility map with location and number of each well in relation to the contamination source it is intended to monitor • Depth-to-shallowest groundwater measurements • Field parameter measurements and parameter stabilization log • Analytical results (including the laboratory quality assurance and quality control summary report) • Updated groundwater elevation contour maps utilizing elevation contours of 2 ft or less in accordance with Subsection L of 20.6.6.23 NMAC

- C. **Stormwater Management** - During implementation of post-closure monitoring, the Permittee shall continue to manage stormwater at the dairy facility in accordance with 20.6.6 NMAC and the conditions as summarized in **Table B5** presented in **Section B100** of this Discharge Permit.
- D. **Well Plugging and Abandonment** - Upon written notification by certified mail from NMED that post-closure monitoring at the facility as specified in **Table B6** of this Discharge Permit may cease, the Permittee shall abandon all remaining facility wells in accordance with the conditions specified in Subsection C of 20.6.6.30 NMAC and **Table B7** below.

Table B7
Post-Closure Well Plugging and Abandonment Requirements

Engineering and Surveying
a) None required.
Operations and Maintenance

Table B7
Post-Closure Well Plugging and Abandonment Requirements

b) Within 90 days of receipt of written notification from NMED, the Permittee shall properly plug and abandon the existing monitoring wells. Wells shall be plugged and abandoned pursuant to 19.27.4 and Subsection C of 20.6.6.30 NMAC and in accordance with NMED's <i>Monitoring Well Construction and Abandonment Guidelines</i> and any other applicable local, state, and federal regulations. Documentation describing the plug and abandonment procedures, including photographic documentation, shall be presented in a <u>Post-Closure Well Abandonment Report</u> .
Inspection and Monitoring
c) None required.
Recordkeeping and Reporting
d) Provide to NMED a <u>Post-Closure Well Abandonment Report</u> within 60 days of completion of well plugging activities. The <u>Post-Closure Well Abandonment Report</u> shall provide information equivalent to the plugging record requirements of 19.27.4 NMAC. [Subsection C of 20.6.6.30 NMAC]

B103 Facility: Contingency Plan

- A. In the event NMED or the Permittee identifies any failures of the Discharge Permit or system not specifically noted herein, NMED may require the Permittee to develop for NMED approval a contingency or corrective action plan and schedule to cope with the failure(s) [20.6.2.3107.A(10) NMAC].
- B. Facility conditions that may occur as part of closure or post-closure and will invariably require Permittee action under one or more contingency plans include:
 1. **Exceedance of groundwater quality standards** – Constituent concentration(s) in one or more groundwater samples collected from a monitoring well intended to monitor contamination sources at a dairy facility including impoundments exceed (1) one or more of the groundwater standards of 20.6.2.3103 NMAC and (2) reported constituent concentration(s) in one or more groundwater samples collected from the upgradient monitoring well for four consecutive quarters.
 2. **Ineffective groundwater monitoring well(s)** – One or more monitoring well(s) required by 20.6.6.23 NMAC are (1) not located hydrologically downgradient of the contamination source(s) intended to monitor, (2) not completed pursuant to 20.6.6.23 NMAC or (3) contains insufficient water to monitor groundwater quality effectively.
 3. **Spills, leaks, unauthorized discharge** - Any spill or release that is not authorized under this Discharge Permit.

If a contingency or corrective action plan is required, the Permittee shall comply with the requirements of Sections 20.6.2.1203, 20.6.6.27 and 20.6.6.29 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of Sections 20.6.2.1203, 20.6.6.27 and 20.6.6.29 NMAC. The Permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, should the corrective action plan not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC.

PART C GENERAL CONDITIONS

C100 Introduction

- A. NMED has reviewed the permit application for the proposed closure and has determined that the provisions of the Dairy Rule and applicable groundwater quality standards will be met in accordance with this Discharge Permit. General conditions for all Discharge Permits issued by the Ground Water Quality Bureau pursuant to NMAC 20.6.2 as well as specific conditions as applied to the closure and post-closure of a dairy facility with use of a land application area pursuant to 20.6.6.30 NMAC are summarized on **Table C1**. Unless otherwise specified in Parts A or B of this Discharge Permit, both the conditions as listed in this part and the facility-specific conditions as listed in **Part B** of this Discharge Permit are mandated to achieve permanent closure of the facility.
- B. For closure, the Permittee shall comply with the requirements of Section 20.6.6.30 NMAC and shall submit to NMED all information or documentation required by the applicable portions of Section 20.6.6.30 NMAC.

Table C1
General Discharge Permit Conditions for Dairy Facility Closure

Engineering and Surveying	
a) None required	
Operations and Maintenance	
b) None required	
Inspection and Monitoring	
c) None required	
Recordkeeping and Reporting	
d) Records of any inspection(s), repairs and maintenance conducted on facility infrastructure as related the former wastewater management system shall be maintained at the dairy facility or be available for NMED review.	
e) Continue to generate monitoring reports that contain monitoring data and information collected pursuant to the Dairy Rule and as described in applicable sections of this Discharge Permit.	
f) Retain required records for a minimum period of 10 years from the date of any sample collection, measurement, report or application in accordance with Section 20.6.6.33 NMAC.	
g) Unless otherwise identified in this Discharge Permit, submit monitoring reports to NMED quarterly according to the following schedule: [Subsection A of 20.6.6.24 NMAC]	
h) January 1 through March 31 (first quarter) – report due by May 1	
i) April 1 through June 30 (second quarter) – report due by August 1	
j) July 1 through September 30 (third quarter) – report due by November 1	
k) October 1 through December 31 (fourth quarter) – report due by February 1	

C101 Legal

- A. Nothing in this Discharge Permit shall be construed in any way as relieving the Permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders [20.6.2 NMAC].
- B. Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the Permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to \$15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the WQCC Regulations, or this Discharge Permit, and civil penalties of up to \$10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6-10 WQA, 74-6-10.1 WQA]
- C. Pursuant to WQA 74-6-10.2(A-F), NMED shall assess criminal penalties for any person who knowingly violates or knowingly causes or allows another person to:
1. Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA;
 2. Falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or
 3. Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation, is subject to felony charges and shall be sentenced in accordance with the provisions of Section 31-18-15 NMSA 1978.
- D. The Permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice in accordance with 20.6.2.3111 NMAC, prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof. The transferee(s) shall notify NMED, in writing, of the date of transfer of ownership and provide contact information for the new owner(s) pursuant to Subsection B of 20.6.6.12 NMAC. Submit to NMED notification of the transfer within 30 days of the ownership transfer date. [20.6.6.34 NMAC]
- E. Pursuant to WQA 74-6-5(o), the Permittee has a right to appeal the conditions and requirements as outlined in this Discharge Permit through filing a petition for review before the WQCC. Such petition shall be in writing to the WQCC within thirty (30) days of the receipt of this Discharge Permit. Unless a timely petition for review is made, the decision of NMED shall be final and not subject to judicial review.

C102 General Inspection and Entry Requirements

- A. Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA]
- B. The Permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to: [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]
 - 1. Enter at regular business hours or at other reasonable times upon the Permittee's premises or other location where records must be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.
 - 2. Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.
 - 3. Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.
 - 4. Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.

C103 General Record Keeping and Reporting Requirements

- A. The Permittee shall maintain a written record of the following:
 - 1. Amount of wastewater, effluent, leachate or other wastes discharged pursuant to this Discharge Permit. [20.6.2.3107.A NMAC]
 - 2. Operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Discharge Permit. Per Section A of 20.6.2.3107 NMAC, this record shall include:
 - a. Repair, replacement or calibration of any monitoring equipment; and
 - b. Repair or replacement of any equipment used in the Permittee's waste or wastewater treatment and disposal system.
 - 3. Any spills, seeps, and/or leaks of effluent, and of leachate and/or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]
- B. The Permittee shall maintain at its facility a written record of all data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request:

1. The dates, exact place and times of sampling or field measurements;
 2. The name and job title of the individuals who performed each sample collection or field measurement;
 3. The date of the analysis of each sample;
 4. The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample;
 5. The analytical technique or method used to analyze each sample or take each field measurement;
 6. The results of each analysis or field measurement, including raw data;
 7. The results of any split sampling, spikes or repeat sampling; and
 8. A description of the quality assurance (QA) and quality control (QC) procedures used.
- C. The Permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The Permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]

Part D MISCELLANEOUS

D100 Supporting On-Line Documents

- A. Copies of the following documents can be downloaded from NMED's web site under Ground Water Quality Bureau or requested from the Bureau.
9. Documents found at:
<https://www.env.nm.gov/gwqb/forms/>
 - a. Notice of Intent to Discharge
 10. Documents found at:
<https://www.env.nm.gov/gwqb/dairy/>
 - a. Application for a New Discharge Permit (dairy facility only)
 - b. Application for Discharge Permit Renewal and/or Modification (dairy facility only)
 - c. Application for Discharge Permit Renewal for Closure (dairy facility only)
 11. Documents found at:
<https://www.env.nm.gov/gwqb/gw-regulations/>
 - a. Regulation 20.6.2 NMAC - Ground and Surface Water Protection
 - b. Regulation 20.6.6 NMAC - Supplemental Permitting Requirements for Dairy Facilities (Dairy Rule)

- c. Monitoring well construction and abandonment guidelines
- d. Synthetically lined lagoons - liner material and site preparation guidelines

D101 Definitions

- A. **“abatement plan”** means a description of any operational, monitoring, contingency and closure requirements and conditions for the prevention, investigation and abatement of water pollution, and includes Stage 1, Stage 2, or Stage 1 and 2 of the abatement plan, as approved by the secretary
- B. **“commission”** means:
 - 1. the New Mexico water quality control commission (WQCC), or
 - 2. NMED, when used in connection with any administrative and enforcement activity
- C. **“dairy facility”** means the production area and the land application area (if applicable), where the discharge and associated activities will or do take place
- D. **“Dairy rule”** means 20.6.6 NMAC, as amended
- E. **“NMED”, “agency”, or “division”** means the New Mexico Environment Department or a constituent agency designated by the **commission**
- F. **“discharge permit”** means a discharge plan approved by NMED
- G. **“discharge permit modification”** means a change to the requirements of a discharge permit that result from a change in the location of the discharge, a significant increase in the quantity of the discharge, a significant change in the quality of the discharge; or as required by the secretary
- H. **“discharge permit renewal”** means the re-issuance of a discharge permit for the same, previously permitted discharge
- I. **“discharge plan”** means a description of any operational, monitoring, contingency, and closure requirements and conditions for any discharge of effluent or leachate which may move directly or indirectly into groundwater
- J. **“discharge site”** means the entire site where the discharge and associated activities will take place
- K. **“discharge volume”** means the measured daily volume of wastewater actually discharged within the production area. This definition does not include the volume of wastewater discharged to a land application area (if applicable).
- L. **“disposal”** means to abandon, deposit, inter or otherwise discard a fluid as a final action after its use has been achieved

- M. **"existing dairy facility"** means a dairy facility that is currently discharging, or has previously discharged and has not been issued a notice from NMED verifying that closure and post-closure monitoring activities have been completed
- N. **"fluid"** means material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state
- O. **"flow meter"** means a device used to measure the volume of water, wastewater or stormwater that passes a particular reference section in a unit of time
- P. **"freeboard"** means the vertical distance between the elevation at the lowest point of the top inside edge of the impoundment and the design high water elevation of the water level in the impoundment
- Q. **"groundwater"** means interstitial water which occurs in saturated earth material and which is capable of entering a well in sufficient amounts to be utilized as a water supply
- R. **"impoundment"** means any structure designed and used for storage or disposal by evaporation of wastewater, stormwater, or a combination of both wastewater and stormwater. A multiple-cell impoundment system having at least one shared berm or barrier whose smallest cells have a cumulative constructed capacity of 10 percent or less of the constructed capacity of the largest cell shall be considered a single impoundment for the purposes of the Dairy Rule. A wastewater or stormwater transfer sump or a solids settling separator is not an impoundment
- S. **"manure"** means an agricultural waste composed of excreta of animals, and residual bedding materials, waste feed or other materials that have contacted excreta from such animals
- T. **"maximum daily discharge volume"** means the total daily volume of wastewater (expressed in gallons per day) authorized for discharge by a discharge permit. This definition does not include the volume of wastewater discharged to a land application area (as applicable)
- U. **"owner of record"** means an owner of property according to the property records of the tax assessor in the county in which the discharge site is located at the time the application was deemed administratively complete
- V. **"Permittee"** means a person who is issued or receives by transfer a discharge permit for a dairy facility or, in the absence of a discharge permit, a person who makes or controls a discharge at a dairy facility.
- W. **"production area"** means that part of the animal feeding operation that includes the following: the animal confinement areas; the manure, residual solids and compost storage areas; the raw materials storage areas; and the wastewater and stormwater containment areas. The animal confinement areas include but are not limited to open lots, housed lots, feedlots, confinement barns, stall barns, free stall barns, milkrooms, milk centers, cowyards, barnyards, hospital pens and barns, and animal walkways. The manure, residual solids and compost storage areas include, but are not limited to, storage sheds, stockpiles, static piles,

and composting piles. The raw materials storage areas include, but are not limited, to feed silos, silage storage areas, feed storage barns, and liquid feed tanks. The wastewater and stormwater containment areas include, but are not limited to, settling separators, impoundments, sumps, run-off drainage channels, and areas within berms and diversions which prohibit uncontaminated stormwater from coming into contact with contaminants

- X. **"responsible person"** means a person who is required to submit a discharge permit or who submits a discharge permit
- Y. **"secretary"** or **"director"** means the secretary of the New Mexico Environment Department or the director of a constituent agency designated by the **commission**
- Z. **"spillway"** means a structure used for controlled releases from an impoundment designed to receive stormwater, in a manner that protects the structural integrity of the impoundment
- AA. **"stormwater"** means direct precipitation and run-off that comes into contact with water contaminants within the production area of a dairy facility
- BB. **"TDS"** means total dissolved solids as determined by the "calculation method" (sum of constituents), by the "residue on evaporation method at 180 degrees" of the "U.S. geological survey techniques of water resource investigations," or by conductivity, as the secretary may determine
- CC. **"toxic pollutant"** means a water contaminant or combination of water contaminants in concentration(s) which, upon exposure, ingestion, or assimilation either directly from the environment or indirectly by ingestion through food chains, will unreasonably threaten to injure human health, or the health of animals or plants which are commonly hatched, bred, cultivated or protected for use by man for food or economic benefit; as used in this definition injuries to health include death, histopathologic change, clinical symptoms of disease, behavioral abnormalities, genetic mutation, physiological malfunctions or physical deformations in such organisms or their offspring; in order to be considered a toxic pollutant a contaminant must be one or a combination of the potential toxic pollutants listed below and be at a concentration shown by scientific information currently available to the public to have potential for causing one or more of the effects listed above; any water contaminant or combination of the water contaminants in the list below creating a lifetime risk of more than one cancer per 100,000 exposed persons is a toxic pollutant. The list of **toxic pollutants** recognized by NMED can be found in Subsection T of 20.6.2.7 NMAC.
- DD. **"unauthorized discharge"** means a release of wastewater, stormwater or other substances containing water contaminants not approved by a discharge permit
- EE. **"wastewater"** means water, that has come into contact with water contaminants as a result of being directly or indirectly used in the operations of a dairy facility including, but not limited to, the following: washing, cleaning, or flushing barns or other roof-covered production areas; washing of animals; spray-cooling of animals (except in open lots); and cooling or cleaning of feed mills and equipment. Wastewater does not include overflow from the drinking water system or stormwater unless overflow or stormwater that is collected is

comingled with wastewater, or it comes into contact with water contaminants as a result of being directly or indirectly used in dairy facility operations

- FF. **“wastes”** means sewage, industrial wastes, or any other liquid, gaseous or solid substance which will pollute any waters of the state
- GG. **“water”** means all water including water situated wholly or partly within or bordering upon the state, whether surface or subsurface, public or private, except private waters that do not combine with other surface or subsurface water
- HH. **“water contaminant”** means any substance that could alter if discharged or spilled the physical, chemical, biological or radiological qualities of water; **“water contaminant”** does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954
- II. **“water pollution”** means introducing or permitting the introduction into water, either directly or indirectly, of one or more water contaminants in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or to unreasonably interfere with the public welfare or the use of property

D102 Acronyms

CQA	construction quality assurance
CQC	construction quality control
DP	discharge permit
FEMA	federal emergency management administration
FIRM	flood insurance rate map
gpd	gallon per day
mg/L	milligram per liter
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMP	Nutrient Management Plan
NMSA	New Mexico Statutes Annotated
TDS	total dissolved solids
WQA	New Mexico Water Quality Act
WQCC	Water Quality Control Commission